

Abstract of the Disclosure:

The transfer function of a filter processing unit is defined by a set of filter coefficients that are continually updated in a coefficient-updating unit. The level of the output signal
5 is adjusted by a level-adjustment unit where, if the largest filter coefficient exceeds an upper threshold value or is below a lower threshold value, a comparator outputs control signals to coefficient-based shifters and to a data signal shifter such that these shift their applied bit sequences in
10 opposite directions and thus multiply or divide the applied data signals by a factor ≥ 2 .

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